Knowledge Organization from a Social Perspective: Thesauri and the Commitment to Cultural Diversity †

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Abstract: Knowledge organization systems can have linguistic and conceptual formations of social oppression and exclusion. It is information science's role to be vigilant in perpetuating seditious discourses which end up reaffirming offenses, prejudices and humiliations to certain groups of people, especially those labeled as marginalized, that is, who are not part of the dominant group holding social power. In the quest for this diversity, this study reviews the literature of the area on how thesauri can become more inclusive and on the role of semantic warrant, specific to the philosophical, literary and cultural warrant. This research highlights the need to review thesaurus construction models so that they can be more open and inclusive to the cultural diversity of today's society, formed by social actors who claim their spaces and representations. To this end, guidelines are suggested for the construction of thesauri procedures that allow cultural warrant receptivity.

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1.0 Introduction

How does one build a thesaurus for some knowledge areas of human and social sciences? The answer to this question may seem quite simple: following thesaurus construction models. However, other questions emerge as we take a closer look at such models: 1) Do they account for the complexity of areas that change so constantly in terms of themes and issues?; 2) Do they cover and cope with issues that are also the subject of disputes in the political and social field?; and 3) Do these models allow the inclusion of cultural diversity addressed by these sciences? The answer to these questions is that to embrace the complexity surrounding cultural diversity representation requires critical analysis and the adaptation or creation of new models. Thesauri have long become tools for librarians and information professionals to represent information, dating from the 1950s, thus for almost seventy years. During these years, when thesauri contributed to facilitating both representation and information retrieval, little concern was given to the exclusionary relationships resulting from the absence of a more critical analysis regarding the representation forms of diversity.

If we consider a language, in this case documentary language (DL), we need to understand that the use of certain terms in certain settings is relevant in perpetuating forms of social oppression, understood in the context of this research as offensive, biased and humiliating structures to certain groups of people, especially those identified as minorities such as women, black people, LGBT+ and others.

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To cope with the terminological and conceptual part of thesauri, warrants for maintaining semantic quality have been included in thesaurus-building processes. Some have been highlighted, such as the philosophical, literary and use warrants. Others, such as the cultural warrant, have failed to find a place in the practical field on the large-scale. Such warrants are responsible for the content these thesauri will have associated with them, whether for diversity or for maintaining discourses of social exclusion.

By seeking the semantic reduction of a term and concept in a given area of knowledge, considering the specialized language (SL) of the field, thesauri need to be aware of the social interlacing certain linguistic formations may reflect on the collection and user communities. Thus, the adoption of warrants ensures inclusion, as the case of cultural warrant.

It is already seen in the knowledge organization literature that DL such as Universal Decimal Classification (UDC) and *Dewey Decimal Classification* (*DDC*) have formations with notations that promote, for example, religious intolerance, as the case presented by Trivelato and Moura (2017) when analyzing the UDC. This research, in addition to many others, leads us to resume the discussion regarding the neutrality of the information action. Thesauri do not deviate from the classification tools pointed out above, as they are simplified representations of the conceptual structure of an area through a hierarchical linguistic structure. In their construction processes, they end up being judged by those who participated in making decisions implying partial interpretations and points of view. Guimarães and Pinho (2007) state that representation systems reflect pre-established standards set out by the creator of a knowledge organization tool. Therefore, it is utopian to speak of neutral information systems, instruments, or actions, as the worldviews of the creators of such elements will be implicitly implicated in the process. Thinking of the transition from neutrality to ethical action is crucial, that is, changing the mindset that there is neutrality in information activity to an ethical information activity concerned with the impact that each action may reflect. They are in line with Barité (2011) by understanding that knowledge organization systems (KOSs) entrenched with the worldviews of one single culture are excluded from cultures other than the one privileged in the construction of the system. Their critique of the construction conducting a KOS, either by the creator's interpretation of the instrument or by the worldview a single culture can offer, can produce social oppression by maintaining and continuing dominant discourses, which may be offensive to certain groups of people.

In this context, this research was guided by the question: how can thesaurus construction procedures be better suited to areas such as the humanities and social sciences through cultural warrant and by expanding cultural diversity? The general objective was to propose guidelines within thesaurus construction models that would open cultural diversity through cultural warrant and be able to cope with the complexity of these sciences.

2.0 Thesaurus and cultural diversity

We have lived moments of social construction when minorities, those left apart from the structure of society, claim their spaces and their voices. Thus, rethinking all social elements is fundamental to give due space to all those who are part and contribute to the construction of society. This process implies the inclusion of cultural diversity in all sectors: in labor, academia, politics, science, information, among others. It is crucial that all instances of information science (IS) studies be concerned with the issue of social inclusion of minorities to be able to achieve cultural diversity. Knowledge and information organization should seek to represent, through its instruments, tools and information products, the various forms of cultural diversity, so that greater identification of users, institutions, information systems or services is achieved.

Thesauri are widely used information organization tools by professionals such as librarians, archivists, museum professionals and others. For a long time, these instruments have been known to facilitate information representation and retrieval. However, advances in ICT have led to greater global cultural interaction at an unimaginable speed for over sixty years, and thesauri have failed to keep up with the expectation of indexing information encompassing global cultural diversity.

One of the elements that eventually caused this lack of representativeness in thesauri was its characteristic of bearing a single voice, that is, a single discourse, usually the scientific-academic one. This characteristic provided what Cintra et al. (2002) and Dodebei (2002) named as "economy;" not in the sense of area of knowledge but regarding an economy of meaning, as it reduces the scope of a term within a context.

However, opening up the possibility of including several voices in the same thesaurus does not mean removing their contextual limitation characteristic. To think about the possibility of the thesauri to accommodate the views and values of more than one culture is in line with the studies of cultural hospitality (Beghtol 2002). This is the ability of a KOS to incorporate more than one worldview into the process of knowledge representation. The author seeks to include the various cultures as a preponderant factor in the fulfillment of an ethical posture as a discussion point in KOS. In this way, cultural hospitality would bring the thesauri a multitude of voices.

Culture "leads us to a complex conceptual universe, made up of innumerable theoretical-ideological strands that

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reflect the different views on its conception and existing dimensions" (Boccato and Biscalchin 2014, 39, our translation). In this sense, both thesauri and KOS require sensitiveness to the inclusion of viewpoints and values shared by various possible stakeholders for the represented information.

Thesauri, as reality representation systems, cannot be exclusive or discriminatory of the ways in which different people, communities and cultures view a particular apprehension about something or someone. The moment thesauri fail to include perspectives on the same object, they set aside a community of potential users to the information system, firstly because those users cannot communicate with the system and secondly because they are not represented or included in it.

We have witnessed cultural interactions closer and closer, and eventually becoming what Garcia Canclini (2015) names "hybrid cultures." In our understanding, this hybridization is the interaction process involving different cultures, which ends up leading to cultural merge. This perception of hybrid cultures is necessary for information organization when we consider a diversity of people, from different cultures, accessing, interacting and retrieving information in the same information system.

As for knowledge organization, these principles are appropriate to the activities, but not to all the processes permeating this work today. These processes demand reformulation to adapt to the inclusion of cultural diversity. One possibility is to include warrants other than literary and use ones, the most widely used, to include cultural warrant.

3.0 Warrants in thesaurus construction

Warrants are studied in the context of KOSs, and the specific literature on IS offers large scientific production related to classification systems. However, the application of these warrants is also appropriate for thesaurus study and construction. Tennis (2005) highlights that warrants are the rationalization of the choice of a term or concept to be included or not in a controlled vocabulary, as it will give the necessary limits for inclusion or exclusion based on terminology. Thus, Feinberg (2010, 492) states that a warrant "defines the potential sources and rationale by which a classification designer determines the contentof the classification."

Thesauri are constructed and formed based on decisions that cannot be merely taken by someone or by a group's wish or personality. Solid foundations for making these decisions are built, which are generally related to the inclusion, exclusion or relocation of terms within the thesaurus. Warrants, therefore, "are important to validate the concepts and terms used to represent a given domain" (Dias 2015, 10, our translation). Following this line, Zeng (*apud* Carlan 2010, 31, our translation) indicates that "the selection process of terms and tests under the principles of "warrants" are very important to the development of any KOS."

Warrants are fundamental to KOS constructions and, more precisely, to thesaurus constructions. This is due to decisions about the inclusion or exclusion of terms, which must be rationally based to avoid the construction of an instrument with randomly collected terms that does not represent the EL of an area of knowledge.

Warrants are many, and some authors differ on quantity, but in the context of this research, we consider the literary, philosophical and cultural warrant. The first one, literary warrant, is the most commented one when talking about the construction of DL, as Dias (2015 12, our translation) highlights: "literary warrant is a necessary condition for the construction of classification systems, thesauri and other controlled vocabularies." Its importance stems from the terminology stored in the specialized literature of an area. Thus, this warrant seeks information sources to validate decision-making and collect terms and concepts that will be part of a KOS. This is a positivist view of a term representativeness for an area of knowledge. However, it is highlighted by the technical standard of the American National Standards Institute/National Information Standards Organization (ANSI/NISO, Z39.19 of 2005) as an indicative element to ensure semantic quality. We can verify this fact in the very concept presented for literary warrant, which is the "Justification for the representation of a concept in an indexing language or for the selection of a preferred term because of its frequent occurrence in the literature." (National Information Standards Organization 2005, 6). The whole process involved in literary warrant seeks to find the basis for proposing a KOS in the documented titles. As KOSs are often designed for specific areas, the language the expert community uses to point out the most appropriate is sought.

Philosophical warrant, also found as scientific warrant is "consistent with scientific and philosophical consensus and is based on the authority of the academia and research" (Guedes and Moura 2016, 83, our translation). To this end, KOS construction should turn to science, or to scientific practices, for decision making regarding the creation of the system. This is one way of considering and building a KOS, based on greater stability and greater standardization.

With this, it is possible to have a warrant which is close to DL's goals, as they aim at language standardization within an information system. However, it is noteworthy that DLs seek standardization but not a regularity of language use, since many authors comment on the need for revision and adequacy of DL terms. Bliss (*apud* Guedes and Moura 2016, 83, our translation) comments that "the importance of the

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relationship of principles based on classical structures of thought for the development of a classification system suggests joining practical, logical and philosophical principles in guiding the development of classification schemes." Beghtol (1986) indicated that philosophical warrant was pointed out as the most suitable for KOS construction by seeking in science, or in academia, the basis for identifying what has relevance to the system. This is due to the constancy science has on the subjects and themes. Its stability in terms of language would vary less frequently than that used by an area expert or users.

Finally, cultural warrant gained prominence especially with Beghtol's 1986 article "Semantic Validity: Concepts of Warrant in Bibliographic Classification Systems." This warrant means that "any kind of knowledge organization and/or representation system may be most convenient and useful for people in a culture only if it is based on the assumptions, values, and predispositions of the same culture" (Guedes and Moura 2016, 13, our translation). The "perspective of cultural warrant is a way of reaching notions and ideas which are difficult to recognize by other semantic parameters in which both user communities can identify and KOS are able to represent abstractions of these ideas" (14). Cultural warrant is, therefore, the means of inserting users' values into a KOS, which will afterwards be accessed by the users themselves. This process brings the users closer to the information system, as it reflects values and predispositions on some of their assumptions.

Pinho (2006, 64), in line with Beghtol, argues that cultural warrant is a "way to add flexibility to knowledge organization and representation systems to encompass aspects related to cultural diversity and make them represented." This state is important as each group creates and is part of a specific culture. If KOS can aggregate them, these cultural specificities become, as the author puts it, more flexible as they give users a perspective that is known and shared by them.

In Gracioso's (2010) understanding, the inclusion of cultural warrant would be a way to reinforce semantic relations within KOSs. Thus, at the end of a KOS creation, there would be a relation of meanings closer to the users' knowledge. It is somewhat predictable that with these culturally closer relationships with users, information professionals could better understand the relationships of meaning at the time of their work with information. Another point Beghtol (2002) makes, which is recognized by Guedes (2016), is the understanding of cultural warrant as an umbrella concept that would hold all other warrants. They are a form of complement supporting cultural warrant. This umbrella metaphor was given Beghtol as early as 1986 and has come back with Guedes (2016) and Guedes and Moura (2016).

Finally, Beghtol (1986, 121) indicates that:

> Cultural warrants influence the underlying operational rationale upon which classification systems depend for meaningfulness and utility. To investigate cultural warrant beyond the intuitive or observational level, the techniques and findings of such fields as sociology, the sociology of knowledge and social/cultural anthropology would have to be applied to the study of bibliographic classification systems.

We understand that, to be able to include this warrant, addressing sociological techniques that cope with the cultural part to be inserted into the KOS would be necessary. Some to be indicated are those intended for data collection, interview, focus group, observation and could be used to understand the process of signification of the elements to be included in the system, to make it more diverse in terms of worldview.

4.0 Methodological procedures

The methodological strategies were systematized to allow the analysis of thesaurus construction procedures and to allow indications that make it more open and receptive to cultural diversity. Initially, we sought thesaurus construction models that could support the analysis. Among the several found, the Integrated Methodological Model for Thesaurus Construction (IMMTC), in annex I, was the most appropriate in the context of this empirical research. This model was proposed by Cervantes (2009) in her doctoral thesis in IS. The purpose of her study was to systematize the various models, norms and authors to create a model integrated in steps and procedural instructions. The model structured and compiled the construction steps in one single instrument and thus facilitated and reduced research efforts. However, each step proposed in the IMMTC was decomposed to understand each of the indicated instructions in a more complex way. With this, there was a return to the sources used by the researcher.

Next, the critical reading of the model and the theoretical construct on cultural warrant was performed for a comparison and association that suited the guidelines given by construction models based on philosophical and literary warrant. Finally, the collected guidelines were categorized to facilitate the inclusion of proposals that would allow the model to be open to cultural warrant.

5.0 Analysis and discussion of results

After the initial analysis of the model, four founding elements were identified and categorized in the process to favor understanding the data obtained from the reading of the model and its guidelines. The perceived categories were: a) people; b) materials; c) methods; and, d) processes.

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This step was followed by the inclusion of elements that allowed the thesaurus to have cultural hospitality. With this, in each of the categories, strategies were conceived to allow the inclusion of more than one voice in the final thesaurus, that is, more voices in addition to science and academia perspectives, which were granted by the philosophical warrant as the holders of EL of an area.

The intention was to open the possibility of having the participation of other social actors that contribute, in the daily dynamics, to the construction of the EL of a certain area. Limiting science and academia as legitimate holders of this language would reduce the importance of other actors and open gaps that could lead to social oppression and to the perpetuation of discourses that are already settled, but in need to be reviewed. It is based on these four elements that the analysis of the obtained data was made.

5.1 People

By analyzing IMMTC, two groups of people involved in the construction of thesaurus are verified. The first group consists of information professionals who apply the model and manage its execution. The second group are "consultants" to assure the semantic quality to the process, required by an instrument that conceptually represents an area of knowledge.

The two groups were divided and presented in separate groups, as each group has different relations with the construction process and is not to be confused. The formation of the first group is independent of the second one, but the opposite is not true, as the second group depends on the choices made by the first one. Differentiating people into groups was important to make specific indications for each one as they are not general guidelines and would cover all involved.

The group of professionals involved in the construction of the thesaurus used guidelines aimed at the formation of a multidisciplinary team that has the viewpoint and critical positioning directed to the worldview the thesaurus in construction seeks to hold. The issue involved at this moment is the ethical posture of such professionals in the pursuit of greater cultural inclusion. Knowing that the work to be done reflects on how the information system user community will identify.

As for the second group, formed by consultants, the guidance given by the author of the model based on the instruments she uses is that experts be sought. There is a gap on the understanding of who these experts are, but, assuming that the basis of the instruments the author used focuses on philosophical warrant, we understand that the indication of the expert is one with an academic background.

It is noteworthy that this group is of great importance on the final result of the thesaurus. In the guidelines about the role of this group, their main role was to advise about the composition of the bibliographic materials to be consulted for terminological research and for guidance on the conceptual structure of the area. This matters as the worldviews of the first group must be aligned to those belonging to the second group. These understandings should be based on the pursuit of diversity and tolerance.

To bring diversity to the composition of this second group, the inclusion of people outside academia and science is also suggested. It does not mean excluding the participation of this collaborator profile, but the inclusion of other people, such as from social movements, from the technical practice of the area of knowledge, people who work in institutions related to thesaurus and others.

With a more diverse formation of the consultant team, the exchange of knowledge, terminology, perspectives and points of view is possible, which is fundamental for designing the thesaurus hospitable to cultural diversity. The multiplicity of voices in the construction of the instrument does not imply the inclusion of several terms for the same concept, or several concepts for a term, but the possibility of a diverse team to collaboratively reach consensus and assist in decision making.

The choices regarding the formation of the teams are relevant to how receptive they are to differences and diversity. Depending on the management of the teams, only sedimentary, oppressive and prejudiced forms may be conducted; however, on the other hand, it may also bring openness to cultural diversity, characteristic of today;s society.

5.2 Materials

In the traditional models of thesaurus construction, the terminology of a certain area is recorded on some support: the materials. More specifically, through the guidelines of the analyzed model and the others that supported its elaboration, those are bibliographic materials.

At this point, the guidelines given by philosophical warrant are reviewed, but with the addition of literary warrant. The combination of these two warrants provides the guidance that the materials to be used must be those created within the academia or by science, philosophical warrant, and that the support and informational format would be the bibliographic sources (books, specialized dictionaries, manuals, journals, congress proceedings and others), due to the literary warrant.

In the guidelines of the bibliographic materials produced by science and academia, several of the instructions present in thesaurus construction models are highlighted. It is understood that the EL of an area would emerge and be created by the specialists, again, those in academia, who regularly search in these materials for specialized terminology.

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However, this line of thought, especially in the human and social sciences, presents certain complications as it is excluded from the complexity of an area, the social actors and their production of information and knowledge, which contribute to the constitution, organization and maintenance of discussions that may not have been created by those with an academic background, who hold the title of specialist but who maintain communication language that is not so distinct from so many others. This means there is specialized communication outside science and academia, which is often set aside for the creation of thesaurus and other DLs.

As a way of breaking this maintenance of science as an EL holder of an area in the thesaurus construction process, the inclusion of diverse sources is indicated. Possible examples are to understand and collect the terminology of non-academic books, newspapers and magazines, social movement bulletins, interviews, documentaries, testimonials, etc.

It is also necessary to think about the disruption of using written materials. Audiovisual sources can be important sources for collecting the terminology of certain areas, as the case of the Transitional Justice in Brazil, a branch that has collected testimonies of victims of the Brazilian military dictatorship and which incorporates the specific worldviews and terminology in its reports but to some extent are also shared by science.

The need to reaffirm that the guidelines do not exclude or invalidate the importance of science and academia for the construction of thesauri is again noteworthy, but we highlight the inclusion of new actors and materials created by them in their movements, in their struggles and in practices that involve the development of an area of knowledge.

5.3 Methods

Methods comprise the systematization for thesaurus construction. It is through this set of guidelines, which also represent the team's choices, that will determine how close or far the final instrument will be to a quality representation of the designed area. The main methods indicated in the IMMTC and the sources are documentary analysis and technical reading of the works. The second one is part of the procedure indicated in the first one, that is, the technical reading is a part of the procedures that comprise what the documentary analysis is. To find the most relevant concepts and terms within the documentary corpus, choosing a technique that allows their identification without having to read all the documents in their entirety is necessary. Thus, documentary analysis emerges, which is widely used by information professionals and studied by information science.

Documentary analysis process begins with reading the document until it is reduced to "products" that facilitate information retrieval and dissemination. One of these products is the representative terms of concepts present in the consulted documents. This implies that these collected terms will be used for the conceptual construction of the chosen area for the thesaurus. Several authors establish the need for understanding the structure of the text as the objective for a good reading, therefore, knowing the macrostructures of the text. This implies using documents with standardized structures that allow this reading with predefined directions. To provide guidelines for documentary analysis, NBR 12.676/1992 was created. It also includes reading the works as a way to identify relevant terms and concepts. However, a relationship of standardization of procedures is perceived.

The new proposal for thesaurus construction methods is to use more open procedures. Considering Beghtol's (1986) proposal to use research techniques from sociology, sociology of knowledge and social anthropology, the author indicated the use of techniques used to collect data from research in these areas to achieve an approach and an openness to cultural warrant. We understand, therefore, that to include this warrant, addressing sociological techniques that cope with the cultural part to be inserted into the KOS is necessary. Some techniques to be indicated are: interviews, focus group, observation, which could be used to understand the process of signification of the elements to be included in the system, to make it more culturally diverse.

These data collection instruments would be indicated for collecting the opinion of consultants, those who have knowledge, not only scientific and academic knowledge, but also of the analyzed area. It is a way of bringing these consultants closer to the thesaurus construction team. As they include data collection techniques, in this case, especially opinions, the indication of techniques to understand what was collected is necessary. Part of the collected work is easy to understand, but the other part, which is not so explicit, needs methods that help the team understand what the consultants said. The use of discourse analysis and content analysis can be effective at this phase.

Following the indications of documents to be used for terminological collection, the next step is to analyze these documents to verify that their understanding of the world aligns with the view the thesaurus will reflect. Again, the use of discourse analysis and content analysis techniques are important. As books, articles, videos and other documents culturally reflect worldviews of those who have written them, the works need to be aligned with the instrument to be built. As going through the works to collect fundamental terms and concepts is necessary, reading continues as a procedure. However, the use of a less standardized reading is indicated, as it takes into consideration more diverse materials than those proposed in traditional models.

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Therefore, the creation of reading strategies for each type of terminological source is needed. The bibliographic strategies are the most common that have systematizations in the information science literature. However, the most diverse sources, such as testimonials, documentaries, personal documents and administrative documents, need more open reading strategies, as they fail to follow standardization. Thus, the strategies would be predefined, but not closed, paths the professional would take to identify relevant terms and concepts for insertion into the thesaurus.

5.4 Processes

The processes in the analyzed model seem to refer to the most standardized forms possible. This must have been a characteristic that allowed great expansion of thesaurus construction, because when the complexity of construction of these instruments is restricted to standardized procedures, they facilitate the construction process. Standardized processes assist in the creation of automated processes.

For a shift toward cultural warrant, the process needs to consider the specificities of each area. Some areas have characteristics that prevent using models as standardized as IM-MTC. Areas still under construction that are intertwined with struggles and social disputes in the material and symbolic fields are a good example, as the terminology of the area is difficult to understand. Disputes involve the process in complex decisions that in some ways represent inclusions and exclusions. Therefore, it is always necessary to turn to forms of inclusion and to an ethical perspective guided by diverse worldviews that fit the thesaurus's goal.

The process, with all these transformations, require professionals involved in construction who have the knowledge and skills to work with the indicated terminology sources, as well as the methods of collecting opinions, reading literature and other works. This is all based on a critical view that allows constant questioning about the role the thesaurus will play not only in the information organization but also how it will identify with the user community.

6.0 Conclusion

In the course of this research we learned that cultural warrant supported the participation of diverse people, terminological materials, methods and processes for the construction of thesaurus. Sources, people and materials, traditionally focused on the scientific and academic point of view, have been expanded to the plurality of sources also recognized by information science. This leads the thesaurus to the possibility of living a diversity of points of view that have been neglected in traditional models.

The objective of the research was not to disqualify or criticize the model proposed by Cervantes (2009) but to understand and argue that there are knowledge areas and domains that do not respond to standardized ways in their conceptual and terminological construction. This may not be the case in areas such as exact sciences and biological sciences, which tend to have a greater constancy of conceptual and terminological standards.

Extending this model to areas such as the humanities and social sciences is necessary to the point that they do not respond so clearly in their conceptual and terminological construction. Various actors in the field, not only academia and science are involved. Social movements, institutions and professionals often constitute new terminological forms that end up affecting the understanding of inclusion and exclusion.

In times of revision of concepts and terms that may represent oppressive forms of power and at the same time generate social exclusion, it is necessary to think of instruments that include forms of incorporating people and terminological materials in their procedures that allow the representation of an area in an inclusive manner and with a different cultural perspective.

For this, thinking beyond the simplistic view of thesauri being instruments of semantic reduction within the context of information systems is needed. Information professionals must be aware of the role this reduction plays within the collection, and for their user community they can seek greater diversity and inclusion of concepts and terms. This implies making thesauri more democratic instruments of social visibility.

This research does not yet represent a conceptual breakthrough of traditional forms of thesaurus construction, but in its essence, it raises a need for a review of thesaurus models, rules, norms and guidelines. All this to present more dynamic and open guidance about the understanding that not all areas and domains respond equally to conceptual and terminological construction.

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Appendix I: Systematization of thesaurus construction steps

INTEGRATED METHODOLOGICAL MODEL FOR THESAURUS CONSTRUCTION	
Systematization of thesaurus construction steps (standardization, literature and thesaurus) – Terminographic procedures	
1. Preliminary work (General guidance /Use of automated equipment of data processing)	– Choice of the thesaurus domain and language; – Subdomain delimitation; – Establishment of the limits of the thematic terminologic research; – Consult with domain/subdomain expert.
2. Compilation Method (Compilation Approach)	– Collection of the terminologic *corpus*; – Establishment of domain tree; – Expansion of representation of chosen domain.
3. Term record	– Term collection and classification.
4. Term Verification (Admission and exclusion of terms / Specificity)	– verification, classification and confirmation of terms; – creation of definitions; – use of specialized vocabulary to establish relationships among descriptors and relationships among descriptors and non-descriptors. – Organization of relations among descriptors.
5. Thesaurus presentation forms	– Thesaurus presentation works.

Source: Cervantes (2009, 163, our translation).

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